

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising a number of through electrodes with equal cross-sectional areas in a semiconductor chip linking a front surface to a back surface thereof, the number of the through electrodes being determined according to a magnitude of an electric current with respect to an identical signal.
2. The semiconductor device as set forth in claim 1, wherein at least one type of the through electrodes is contact through electrodes electrically connected to that semiconductor chip.
3. The semiconductor device as set forth in claim 1, wherein at least one type of the through electrodes is non-contact through electrodes not electrically connected to that semiconductor chip.
4. The semiconductor device as set forth in claim 1, wherein a number of those through electrodes which are connected to a ground terminal or a power supply terminal of the semiconductor chip is greater than a number of those through electrodes which are connected to a signal terminal thereof.

5. A chip-stack semiconductor device, comprising multiple stacked semiconductor chips, each of the semiconductor chips including a number of through electrodes with equal cross-sectional areas therein linking a front surface to a back surface thereof, the number of the through electrodes being determined according to a magnitude of an electric current with respect to an identical signal.

6. A chip-stack semiconductor device, comprising multiple stacked semiconductor chips, each of the semiconductor chips including a number of through electrodes with equal cross-sectional areas therein linking a front surface to a back surface thereof, the number of the through electrodes being determined according to a magnitude of an electric current with respect to an identical signal,

wherein

at least one type of the through electrodes is contact through electrodes electrically connected to that semiconductor chip.

7. A chip-stack semiconductor device, comprising multiple stacked semiconductor chips, each of the semiconductor chips including a number of through electrodes with equal cross-sectional areas therein linking a front surface to a

back surface thereof, the number of the through electrodes being determined according to a magnitude of an electric current with respect to an identical signal,

wherein

at least one type of the through electrodes is non-contact through electrodes not electrically connected to that semiconductor chip.

8. A chip-stack semiconductor device, comprising multiple stacked semiconductor chips, each of the semiconductor chips including a number of through electrodes with equal cross-sectional areas therein linking a front surface to a back surface thereof, the number of the through electrodes being determined according to a magnitude of an electric current with respect to an identical signal,

wherein

a number of those through electrodes which are connected to a ground terminal or a power supply terminal of that semiconductor chip is greater than a number of those through electrodes which are connected to a signal terminal thereof.

9. The chip-stack semiconductor device as set forth in claim 5, wherein a number of those through electrodes which connect $n+1$ or more adjacent semiconductor chips

is greater than a number of those through electrodes which connect n adjacent semiconductor chips, where n is an integer more than or equal to 2.

10. The chip-stack semiconductor device as set forth in claim 6, wherein a number of those through electrodes which connect $n+1$ or more adjacent semiconductor chips is greater than a number of those through electrodes which connect n adjacent semiconductor chips, where n is an integer more than or equal to 2.

11. The chip-stack semiconductor device as set forth in claim 7, wherein a number of those through electrodes which connect $n+1$ or more adjacent semiconductor chips is greater than a number of those through electrodes which connect n adjacent semiconductor chips, where n is an integer more than or equal to 2.

12. The chip-stack semiconductor device as set forth in claim 8, wherein a number of those through electrodes which connect $n+1$ or more adjacent semiconductor chips is greater than a number of those through electrodes which connect n adjacent semiconductor chips, where n is an integer more than or equal to 2.

13. The chip-stack semiconductor device as set forth in claim 5, wherein the number of the through electrodes is increased according to an interconnect line length through the multiple stacked semiconductor chips.

14. The chip-stack semiconductor device as set forth in claim 6, wherein the number of the through electrodes is increased according to an interconnect line length through the multiple stacked semiconductor chips.

15. The chip-stack semiconductor device as set forth in claim 7, wherein the number of the through electrodes is increased according to an interconnect line length through the multiple stacked semiconductor chips.

16. The chip-stack semiconductor device as set forth in claim 8, wherein the number of the through electrodes is increased according to an interconnect line length through the multiple stacked semiconductor chips.

17. The chip-stack semiconductor device as set forth in claim 13, wherein the number of the through electrodes is increased in proportion to an interconnect line length through the multiple stacked semiconductor chips.

18. The chip-stack semiconductor device as set forth in claim 14, wherein the number of the through electrodes is increased in proportion to an interconnect line length through the multiple stacked semiconductor chips.

19. The chip-stack semiconductor device as set forth in claim 15, wherein the number of the through electrodes is increased in proportion to an interconnect line length through the multiple stacked semiconductor chips.

20. The chip-stack semiconductor device as set forth in claim 16, wherein the number of the through electrodes is increased in proportion to an interconnect line length through the multiple stacked semiconductor chips.